## P-3 Orion 04/25/18

Aircraft: P-3 Orion - WFF (See full schedule)
Flight Number: 2018 OIB Arctic -Science #15
Payload Configuration: 2018 OIB Arctic

Nav Data Collected: No Total Flight Time: 7.7 hours

Submitted by: Janet Letchworth on 04/25/18

Flight Segments:

| From:              | BGSF   | То:     | BGSF             |  |  |
|--------------------|--|---------|------------------|--|--|
| Start:             | 04/25/18 11:23 Z                                       | Finish: | 04/25/18 19:05 Z |  |  |
| Flight Time:       | 7.7 hours  |         |                  |  |  |
| Log Number:        | 18P008   | PI:     | Nathan Kurtz     |  |  |
| Funding Source:    | Bruce Tagg - NASA - SMD - ESD Airborne Science Program |         |                  |  |  |
| Purpose of Flight: | Science  |         |                  |  |  |
| Comments:          | This was the Southeast Coastal baseline flight.        |         |                  |  |  |

Flight Hour Summary:

|                                | 18P008 |
|--------------------------------|--------|
| Flight Hours Approved in SOFRS | 201.2  |
| Total Used                     | 190.4  |
| Total Remaining                | 10.8   |

| 18P008 Flight Reports         |   |                   |          |                  |                    |                |
|-------------------------------|---|-------------------|----------|------------------|--------------------|----------------|
| Date                          | Fit #   | Purpose of Flight | Duration | Running<br>Total | Hours<br>Remaining | Miles<br>Flown |
| 03/13/18                      | 2018 OIB Arctic -<br>Airworthiness Test Flight  | Other             | 0.8      | 0.8              | 200.4              |                |
| 03/14/18                      | 2018 OIB Arctic -Project<br>Test Flight - Laser | Other             | 2.6      | 3.4              | 197.8              |                |
| 03/15/18                      | 2018 OIB Arctic -Project<br>Test Flight - Radar | Other             | 5.7      | 9.1              | 192.1              |                |
| 03/18/18                      | 2018 OIB Arctic -delta<br>ATF                   | Other             | 0.8      | 9.9              | 191.3              |                |
| 03/20/18                      | 2018 OIB Arctic -Transit to Thule               | Transit           | 7.9      | 17.8             | 183.4              |                |
| 03/22/18                      | 2018 OIB Arctic -<br>Science #1                 | Science           | 7.8      | 25.6             | 175.6              |                |
| 04/03/18                      | 2018 OIB Arctic -<br>Science #2                 | Science           | 7.9      | 33.5             | 167.7              |                |
| 04/04/18                      | 2018 OIB Arctic -<br>Science #3                 | Science           | 8.1      | 41.6             | 159.6              |                |
| 04/05/18                      | 2018 OIB Arctic -<br>Science #4                 | Science           | 8        | 49.6             | 151.6              |                |
| 04/06/18                      | 2018 OIB Arctic -<br>Science #5                 | Science           | 8.8      | 58.4             | 142.8              |                |
| 04/07/18 <u>-</u><br>04/08/18 | 2018 OIB Arctic -<br>Science #6                 | Science           | 8.1      | 66.5             | 134.7              |                |
| 04/08/18 -<br>04/09/18        | 2018 OIB Arctic -<br>Science #7                 | Science           | 8.3      | 74.8             | 126.4              |                |
| )4/14/18 <u>-</u><br>)4/15/18 | 2018 OIB Arctic -<br>Science #8                 | Science           | 7.7      | 82.5             | 118.7              |                |
| 04/16/18                      | 2018 OIB Arctic -<br>Science #9                 | Science           | 8.2      | 90.7             | 110.5              |                |

| 04/18/18 | 2018 OIB Arctic -<br>Science #10          | Science | 8   | 98.7  | 102.5 |
|----------|---|---------|-----|-------|-------|
| 04/19/18 | 2018 OIB Arctic -<br>Science #11          | Science | 7.7 | 106.4 | 94.8  |
| 04/20/18 | 2018 OIB Arctic -Transit to Kanger        | Transit | 4.2 | 110.6 | 90.6  |
| 04/21/18 | 2018 OIB Arctic -<br>Science #12          | Science | 8.1 | 118.7 | 82.5  |
| 04/22/18 | 2018 OIB Arctic -<br>Science #13          | Science | 6.5 | 125.2 | 76    |
| 04/23/18 | 2018 OIB Arctic -<br>Science #14          | Science | 8.2 | 133.4 | 67.8  |
| 04/25/18 | 2018 OIB Arctic -<br>Science #15          | Science | 7.7 | 141.1 | 60.1  |
| 04/26/18 | 2018 OIB Arctic -<br>Science #16          | Science | 8.8 | 149.9 | 51.3  |
| 04/27/18 | 2018 OIB Arctic -<br>Science #17          | Science | 8   | 157.9 | 43.3  |
| 04/29/18 | 2018 OIB Arctic -<br>Science #18          | Science | 8.3 | 166.2 | 35    |
| 04/30/18 | 2018 OIB Arctic -<br>Science #19          | Science | 9.3 | 175.5 | 25.7  |
| 05/01/18 | 2018 OIB Arctic -<br>Science #20          | Science | 7.4 | 182.9 | 18.3  |
| 05/03/18 | 2018 OIB Arctic -Return<br>Transit Leg #1 | Transit | 6.4 | 189.3 | 11.9  |
| 05/03/18 | 2018 OIB Arctic -Return<br>Transit Leg #2 | Transit | 0.6 | 189.9 | 11.3  |
| 05/03/18 | 2018 OIB Arctic -Return<br>Transit Leg #3 | Transit | 0.5 | 190.4 | 10.8  |

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

#### **Related Science Report:**

## OIB - P-3 Orion 04/25/18 Science Report

Mission: OIB
Mission Summary:

Misson: Southeast Coastal

Priority: Baseline

This mission reflies a 20-km coast-parallel grid along the southeast Greenland coast, enabling direct measurement of dh/dt in the catchment areas of the many major glaciers in the area across a range of surface elevations. It also reflies the centerlines of the Fritdjof Glacier, as well as the two central branches of the Ikertivaq Glaciers. The Ikertivaq centerlines are new for 2015.

Following a snowy night in Kangerlussuaq, we departed about 45 min later than usual due to required de-icing. Following intermittent cloud on the transect that only marginally affected laser altimetry data collection, we encountered the forecast clear skies along the southeastern coast. Only mild turbulence was encountered, and all the coast-parallel lines were successfully and uneventfully surveyed. Some clouds were encountered again as we approached the ice-sheet margin near Kangerlussuaq, for an estimated data recovery of 97%. All instruments performed well.

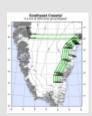
#### Attached images:

- 1. Map of today's mission (John Sonntag / NASA)
- 2. The terminus of Koge Bugt, a large outlet glacier along the southeastern coast (Joe MacGregor / NASA)

- 3. Deep, dry serac blocks (Joe MacGregor / NASA)
- 4. A former mountain, long since overrun by an outlet glacier (Joe MacGregor / NASA)
- 5. Radiative heating from a bedrock high may have led to cloud formation directly above it (Joe MacGregor / NASA)

### Images:

# Map of today's mission



### Read more

# The terminus of Koge Bugt, a large outlet glacier along the



#### Read more

## Deep, dry serac blocks



### Read more

# A former mountain, long since overrun by an outlet glacier



### Read more

# Radiative heating from a bedrock high may have led to cloud



#### Read more

Submitted by: Joseph MacGregor on 04/27/18

Page Last Updated: April 22, 2017

Page Editor: Brad Bulger

NASA Official: Bruce A. Tagg

**Source URL:** https://airbornescience.nasa.gov/flight\_reports/P-3\_Orion\_04\_25\_18#comment-0